From: Donna Schantz [schantz@pwsrcac.org]
Sent: Wednesday, August 14, 2002 9:26 PM
To: Ronald.Montagna@hq.doe.gov; VA.Stephens@hq.doe.gov; Ilir.Angjeli@hq.doe.gov; Max.Copenhagen@hq.doe.gov; Bob.Middleton@hq.doe.gov; Bonny.Overton@hq.doe.gov; Andrea.Sarzynski@hq.doe.gov; Amos.Street@hq.doe.gov; Brenda.Mallory@hq.doe.gov
Subject: Citizen Involvement Report

To: White House Task Force on Energy Project Streamlining
From: Donna Schantz, Program Coordinator, Prince William Sound Regional Citizens' Advisory Council

Attached is a pdf copy of a paper prepared by the Prince William Sound Regional Citizens' Advisory Council for the White House Task Force on Energy Project Streamlining titled "Effectiveness of Citizen Involvement". This was prepared at the request of Ron Montagna during his July 19, 2002 visit and orientation at the Valdez Marine Terminal and the Trans-Alaska Pipeline Service tanker trade.

Hard copies of this report, along with a cover letter, were sent in the mail to all Task Force members today.

Please feel free to contact us if you have any questions about the Prince William Sound Regional Citizens' Advisory Council or the attached report. More information on our organization can be found on our web-site at: www.pwsrcac.org or by contacting our offices at: 1-800-478-7221 (Anchorage) or 1-877-478-7221 (Valdez).

Thank you, in advance, for taking the time to learn more about our organization and how local citizens can play an effective, positive role in the decision-making process for natural resource extraction projects.

Regional Citizens' Advisory Council / *"Citizens promoting environmentally safe operation of the Alyeska terminal and associated tankers."*

In Anchorage: 3709 Spenard Road / Anchorage, Alaska 99503 / (907) 277-7222 / FAX (907) 277-4523
In Valdez: P.O. Box 3089 / 339 Hazelet Avenue / Valdez, Alaska 99686 / (907) 835-5957 / FAX (907) 835-5926

August 12, 2002

Mr. Ron Montagna
White House Task Force on Energy Project Streamlining
WH-1, Room 8E044
1000 Independence Avenue, SW
Washington, DC 20585

Dear Mr. Montagna:

It was a pleasure meeting with you in Valdez on July 19, 2002 during your visit and orientation at the Valdez Marine Terminal and the Trans-Alaska Pipeline Service tanker trade. I hope that you and the other members of the White House Task Force on Energy Project Streamlining found the information presented helpful to your mission of increasing the production and transmission of energy in a safe and environmentally sound manner for our Nation.

Per your request, I have attached a report on the Prince William Sound Regional Citizens' Advisory Council titled: "Effectiveness of Citizen Involvement". I have also supplied copies of this report to all of the other Task Force members. The focus of this paper is to show how partnerships among citizens, industry and regulators working to resolve issues early in the process leads to good policies, safer projects and improved environmental protection practices.

Please do not hesitate to contact me if you, or any other Task Force members, have any questions regarding this report or would like more information on the projects and accomplishments of the Prince William Sound Regional Citizens' Advisory Council. I can be reached by phone at: (907) 234-7562 or by e-mail at: lewissk@pobox.alaska.net.

Sincerely,

Stephen K. Lewis
President

cc: Richard Ranger, Alyeska Pipeline Service Company
CDR Mark Swanson, MSO Valdez
White House Task Force on Energy Project Streamlining:
VA Stephens, Director
Ilir Angjeli, Project Support
Veronica Angulo, Pipelines
Max Copenhagen, Renewables, Conservation, Hydropower
Bob Middleton, Exploration & Production, Offshore
Bonny Overton, Administrative Assistant, Scheduler
Andrea Sarzynski, Project Support
Amos Street, Jr., Project Manager
Brenda Mallory, Electricity, Generation, Nuclear, Refineries

Effectiveness of Citizen Involvement

Prepared by the

Prince William Sound Regional Citizens' Advisory Council

For the

White House Task Force on Energy Project Streamlining

August 12, 2002

Prince William Sound Regional Citizens' Advisory Council

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INTRODUCTION

This report covers the history, mission, responsibilities, accomplishments and current projects of the Prince William Sound Regional Citizens' Advisory Council (PWSRCAC), an independent non-profit corporation whose mission is to promote environmentally safe operation of the Valdez Marine Terminal and associated tankers. Our work is guided by the Oil Pollution Act of 1990, and our contract with Alyeska Pipeline Service Company. PWSRCAC's 18 member organizations are communities in the region affected by the 1989 Exxon Valdez oil spill, as well as commercial fishing, aquaculture, Native, recreation, tourism and environmental groups.

PWSRCAC's activities are organized by five major programs. The programs and projects for the fiscal year 2003 (July 2002 through June 2003) include:

Terminal Operations and Environmental Monitoring Program: This program monitors actual and potential environmental impacts stemming from the operation of the Valdez Marine Terminal, and reviews operational and maintenance practices. Current projects cover the renewal of the National Pollutant Discharge Elimination System permit for the ballast water treatment facility, the Trans-Alaska pipeline right-of-way renewal, terminal fire protection systems and the Title V air quality permit renewal.

Oil Spill Response Planning Program: Through this program, PWSRCAC develops positions and recommendations on oil spill response technologies and reviews state and federal contingency plans to promote compliance with and enforcement and funding of existing environmental regulations. Current projects include the Valdez Marine Terminal and tanker contingency plan renewals, establishing weather and sea current studies and identifying geographic response strategies for sensitive area protection.

Oil Spill Response Operations Program: This program encompasses the on-going activities that are designed to promote the operational readiness of oil spill response personnel, equipment and organization. Current projects include the preparedness monitoring project to enhance our ability to observe, monitor, verify and report on activities that reflect the state of readiness to prevent and respond to oil spills in our region, and the development of a scientific response plan to guide the initial response to a spill.

Maritime Operations Program: Through this program, PWSRCAC monitors and reviews port organizations, operations, incidents and the adequacy and maintenance of the U.S. Coast Guard Vessel Traffic System. Projects include the ice detection radar being installed to provide real-time data on ice conditions to Alyeska's ship escort and response vessel system, the U.S. Coast Guard, tanker captains and mariners and the creation of a tanker database to track pollution incidents and ship integrity.

Environmental Monitoring Program: This program encompasses site-specific and region-wide monitoring activities. Current projects include the on-going long-term environmental monitoring for hydrocarbons at sites in Prince William Sound, researching how non-indigenous species invasion can be detected and avoided and dispersant toxicity and effectiveness.

More information on the PWSRCAC can be found on our web site at: www.pwsrcac.org, or by contacting our offices at: 1-800-478-7221 (Anchorage) or 1-877-478-7221 (Valdez).

HISTORY

March 24, 1989 Exxon Valdez Oil Spill

On March 24, 1989, the tanker Exxon Valdez grounded on Bligh Reef, spilling 11 million gallons of North Slope crude oil into Prince William Sound, Alaska. Over the weeks that followed, the spilled oil spread west and south, oiling shorelines and beaches in Prince William Sound, lower Cook Inlet, the Alaska Peninsula and the Kodiak Archipelago. To date, this is the largest oil spill in U.S. history.

Public and political reactions were swift. The Governor of Alaska convened a special commission to investigate the oil spill and develop recommendations. The Alaska State Legislature passed stronger laws. In Washington, D.C., Congress began rewriting federal pollution laws for what would become the Oil Pollution Act of 1990.

The Idea of Citizen Oversight

The Prince William Sound Regional Citizens' Advisory Council (PWSRCAC) grew out of the March 24, 1989 Exxon Valdez oil spill. The idea of a citizens' oversight group to advise Alyeska Pipeline Service Company, which operates the Trans-Alaska oil pipeline and the Valdez Marine Terminal, had been proposed by local residents before the spill with no results. After the Exxon Valdez oil spill, a change in leadership and attitude at Alyeska welcomed citizen involvement.

Public advisory groups are hardly a new concept, but the PWSRCAC is unusual in several respects: it is mandated by federal law, well funded, independent, and it is assured a high level of access to pipeline terminal facilities. Public advisory groups are capable of making important contributions to the policy process and are capable of making contributions to new environmental safeguards. The key factor in the success of a public advisory group is a working relationship whereby industry, government and the public, as a collaborative team, can create a safer system.

The First Citizens' Advisory Group for Prince William Sound

In July 1989, Alyeska pulled together a group representing various communities and interests impacted by the spill to work with Alyeska on oil spill prevention and response in Prince William Sound. In December 1989, a group comprised of some of these same individuals, as well as others, incorporated as the non-profit Prince William Sound Regional Citizens' Advisory Council (PWSRCAC). Then, in February 1990, PWSRCAC and Alyeska signed a contract ensuring for PWSRCAC: absolute independence from Alyeska, access to Alyeska facilities, guaranteed annual funding, and assurance that the contract would last as long as oil flowed through the Trans-Alaska pipeline.

The Value of Citizens' Involvement

The 1989 Exxon Valdez experience demonstrated that the oil industry could learn from people who live and work in the region affected by the terminal and tanker operations. A moral imperative also emerged from the Exxon Valdez spill: those people with the most to lose from oil pollution must have a voice in the decisions that put their livelihoods and communities at risk. The PWSRCAC oversight panel ensures that public interests are represented in minimizing environmental impacts of the Trans-Alaska pipeline terminal and the tanker fleet traveling to and from Port Valdez, Alaska.

GUIDING DOCUMENTS

Oil Pollution Act of 1990

The Oil Pollution Act of 1990 (OPA90), a federal law, was passed in response to the 1989 oil spill and established two pilot programs in Alaska for citizen oversight of oil terminal and tanker operations. The law allowed existing nonprofit organizations to be certified as the required citizens' groups. PWSRCAC met the intent and requirements of OPA90, and continues to be recertified by the U.S. Coast Guard every year as the designated citizens' advisory group for Prince William Sound (Cook Inlet Regional Citizens' Advisory Council is the other citizen oversight group).

The work of the PWSRCAC is guided by its contract with Alyeska and OPA90. OPA90 requires Alyeska (and other industry cooperatives) to establish and fund citizens' advisory groups. Among the findings listed in Section 5002 of OPA90, cited as "Oil Terminal and Oil Tanker Environmental Oversight and Monitoring Act of 1990," are the following:

- *** -

B. many people believe that complacency on the part of the industry and government personnel responsible for monitoring the operation of the Valdez terminal and vessel traffic in Prince William Sound was one of the contributing factors to the Exxon Valdez oil spill;
C. one way to combat this complacency is to involve local citizens in the process of preparing, adopting, and revising oil spill contingency plans;
D. a mechanism should be established which fosters the long-term partnership of industry, government, and local communities in overseeing compliance with environmental concerns in the operation of crude oil terminals;

- *** -

H. only when local citizens are involved in the process will the trust develop that is necessary to change the present system from confrontation to consensus;
I. a pilot program patterned after Sullom Voe should be established in Alaska to further refine the concepts and relationships involved; and
J. similar programs should eventually be established in other major crude oil terminals in the United States, because the recent spills in Texas, Delaware and Rhode Island indicate that safe transportation of crude oil is a national problem.

PWSRCAC/Alyeska Contract

Alyeska and PWSRCAC signed a contract on February 8, 1990. Under the terms of the contract, in effect as long as oil flows through the pipeline, PWSRCAC monitors terminal and tanker operations, conducts research and environmental monitoring, provides Alyeska with local and regional input, and advises Alyeska and the public on terminal and tanker operations. While the contract between PWSRCAC and Alyeska stands on its own, the relationship is reinforced and codified by provisions of OPA90.

PWSRCAC/Alyeska Protocol Agreement

Recognizing that the missions of PWSRCAC and Alyeska are not the same, communication between the two is guided by a protocol agreement developed to prevent conflict. There is a commitment of both parties to abide by the provisions of the protocol. The basic premises of the protocol agreement are to: avoid surprises; strive to resolve areas of disagreement in a cooperative and good faith manner; refrain from discussing sensitive issues with the media until a good faith effort has been made to resolve disagreements; and never characterize the intent of the other party.

PWSRCAC MISSION AND COMPOSITION

Mission and Goals of PWSRCAC

The PWSRCAC provides a voice for communities and citizens. The PWSRCAC mission statement is: Citizens promoting environmentally safe operation of the Alyeska Terminal and associated tankers. The goal of the PWSRCAC is to carry out its advisory role vigorously, but in close coordination and cooperation with Alyeska and relevant government agencies so as to continue to ensure that the transportation of oil through Prince William Sound is the safest anywhere in the world. A PWSRCAC Board Member once described the PWSRCAC as "the most noble experiment that any of us has ever been associated with." As long as oil is transported through the Sound, it will remain of paramount importance that the public has confidence that all that can reasonably be done is being done to prevent a future oil spill, and to expeditiously and efficiently respond to any such spill if one does occur. This “noble experiment” is a key means to help ensure that this goal is achieved.

In the most simple terms, PWSRCAC’s mission to prevent oil spills and pollution from the regular operations of the marine terminal and tankers. The PWSRCAC works closely with the industry, regulators and citizens to prevent groundings and collisions. If those efforts fail, we want to prevent the discharge of oil. If oil is in the water, we want to contain it and prevent spreading and shoreline damage. If the natural resources are damaged, we need to prevent social and economic harm to the people living in the region.

PWSRCAC is very interested in preventing environmental damage from all oil transportation activities, not just spills. Examples include vapor control and ballast water treatment at the terminal and the risk of introduction of aquatic nuisance species via tanker ballast. We all share the responsibility to prevent complacency – a false sense of security on the part of industry, government, and the citizens.

PWSRCAC Member Entities

PWSRCAC has 18 voting member entities established in its bylaws. They include villages, cities, and groups representing Native Alaskans, conservation, tourism, commercial fishing and aquaculture. All member entities were affected in some way by the 1989 Exxon Valdez oil spill, and all have a significant stake in the prevention of oil pollution and protection of marine resources in the area. The member entities are:

Organization	Member since
City of Cordova	Charter 1989
City of Homer	Charter 1989
City of Kodiak	Charter 1989
City of Seldovia	Charter 1989
City of Seward	Charter 1989
City of Valdez	Charter 1989
City of Whittier	Charter 1989
Kenai Peninsula Borough	Charter 1989
Chugach Alaska Corporation	Charter 1989
Cordova District Fishermen United	Charter 1989
Kodiak Island Borough	Charter 1989
Kodiak Village Mayors Association	Charter 1989
Prince William Sound Aquaculture Corporation	Charter 1989
Alaska State Chamber of Commerce	1990
Alaska Wilderness Recreation and Tourism Assn.	1992
Community of Tatitlek	1992
Community of Chenega Bay	1992
Oil Spill Region Environmental Coalition	1994

Ex-Officio Members

PWSRCAC bylaws also provide for 10 ex-officio, or non-voting, members, in order to keep federal, state and local government better informed about the activities of PWSRCAC under its contract with Alyeska. The ex-officio members are: Alaska Department of Environmental Conservation, Alaska Department of Fish and Game, Alaska Department of Military Affairs-Division of Emergency Services, Alaska Department of Natural Resources, U.S. Coast Guard, U.S. Department of the Interior-Office of Environmental Affairs, U.S. Environmental Protection Agency, U.S. Forest Service, U.S. National Oceanic and Atmospheric Administration and the Oil Spill Recovery Institute.

Volunteer Committees

PWSRCAC has four standing volunteer committees. Volunteer members are primarily citizens from the communities in the region affected by the 1989 Exxon Valdez spill. Committees study and discuss current oil transportation issues, oftentimes formulating their own advice and recommendations to the full PWSRCAC board of directors. Project staff also work with the committees to solicit input on project work. The committees provide an avenue for public participation and broaden the scope of PWSRCAC's work. The four PWSRCAC volunteer committees are:

- Oil Spill Prevention and Response Committee (OSPR)
- Scientific Advisory Committee (SAC)
- Terminal Operations and Environmental Monitoring (TOEM)
- Port Operations and Vessel Traffic Systems (POVTS)

Staff

PWSRCAC has an office in Anchorage and one in Valdez. Currently, there are 8 staff in Anchorage and 8 in Valdez. The Executive Director is the senior staff position reporting directly to the Board of Directors. While the Board sets the course for PWSRCAC, the Executive Director is responsible for keeping PWSRCAC on its course.

PWSRCAC RESPONSIBILITIES, EFFECTIVENESS AND ACCOMPLISHMENTS

Responsibilities of PWSRCAC

The primary responsibilities of the PWSRCAC are to advise Alyeska and the public on oil spill prevention and response, and ways to mitigate the environmental impact of terminal and tanker operations. Our responsibilities include monitoring the implementation of spill prevention and response plans, increasing public awareness of Alyeska's current capabilities and spill prevention and response, fostering long term partnerships with industry, government and local communities, and conducting independent research.

Complacency in the oil industry, government agencies and the general public is viewed as a root cause of the Exxon Valdez spill. A primary goal of the PWSRCAC is to prevent complacency from ever again becoming a factor in an oil spill.

PWSRCAC Effectiveness

The PWSRCAC has grown and changed since 1989, and continues to strive for increased effectiveness. There have been clear successes that are outlined in the following section. PWSRCAC's effectiveness is proven in that the citizens in our region have a more influential voice than seemed possible considering the political climate before the 1989 oil spill. Oil transportation in the region is indisputably safer, and citizens and industry are working together to solve problems.

The work of PWSRCAC takes several forms. PWSRCAC submits written comments on oil spill contingency plans, legislation, regulations and permits, and industry policies and procedures. The comments usually include recommendations for changes and positions on specific issues. PWSRCAC's positions are generally based on recommendations from staff, committees and technical consultants. Individual board members with extensive knowledge on particular issues also make recommendations to the full board.

PWSRCAC commissions reports and funds independent scientific research. Reports and findings may be used to develop policy positions and recommendations, or they may be made available to the public as general information.

PWSRCAC participates in working groups and joint projects with industry and government representatives and is a major funding source for many of these joint projects. Some of the joint working groups and projects include issues ranging from tanker transportation risks in Prince William Sound, to fire safety and pollution discharge permits.

Joint projects have been especially successful in promoting effective working relationships among citizens, industry and regulators. Joint projects generate a cooperative spirit of shared problem-solving. When stakeholders develop and manage a project together, disagreements are worked out early. Stakeholders are able to focus on action, rather than reaction, and they avoid no-win debates among dueling scientists. Joint projects minimize conflict and lead to common ground.

One of the best examples of progress through cooperation and working relationships is the Valdez Marine Terminal Ballast Water Treatment Working Group. In late 1994 the Environmental Protection Agency (EPA) invited input to the effluent discharge permit renewal process. EPA hosted a public meeting and invited the four major stakeholders (EPA, Alaska Department of Environmental Conservation, Alyeska Pipeline Service Company, and PWSRCAC) and other interested parties. Based on past history, reissuance of this permit had been highly contentious and divisive; the permit in place at that time had been the subject of controversy that could be characterized as adversarial, acrimonious, and often non-productive. The permit had been in litigation for several years after issuance. The permit renewal process to begin in 1995 was expected to result in similar controversy and litigation. Ground rules were agreed upon, and it was decided that an independent moderator would be hired. The objective of the meeting was to find common ground on which to base scientific and technical recommendations to management and policy makers. Eight areas of agreement were in fact determined. The areas of agreement were not reached easily, and there was much discussion regarding exact wording, but final agreement was reached. There were no administrative appeals or litigation following the permit renewal; and the permit now requires a multi-stakeholder working group to review monitoring data and discuss the few remaining contentious environmental monitoring issues. Joint and independent scientific studies have been conducted; open and forthright dialogue continues; and a framework is in place for a productive process for the scheduled 2002 permit renewal.

Accomplishments

PWSRCAC proves that local citizens can play an effective, positive role in the decision-making process and that citizens, oil companies and government agencies can work together to solve problems. Through monitoring, research, advising and fostering partnerships, some of the PWSRCAC's most notable accomplishments include:

Disabled Tanker Towing Study

In 1991, the PWSRCAC worked with industry and government agencies on a major study of disabled tanker towing. It generated valuable information about the capabilities and limits of tanker escorts used in Prince William Sound and the Gulf of Alaska. The study resulted in changes in escort procedures, and tighter restrictions and performance requirements.

Prince William Sound Tanker Risk Assessment

In 1996, the PWSRCAC participated with oil shipping companies, the U.S. Coast Guard, Alaska Department of Environmental Conservation and Alyeska in a study to identify risks in the tanker transportation system. The Prince William Sound Tanker Risk Assessment study analyzed the entire tanker transportation system in Prince William Sound. The study represented the first system-wide examination of

oil transportation in Prince William Sound and recommended eight measures to further enhance the safety of oil transportation.

Double-Hull Tankers
PWSRCAC has been a staunch advocate for double-hull tankers to minimize the risk and size of future crude oil spills. The arrival in July 2001 of the first double-hull tanker built specifically for the Valdez oil trade under OPA90 was a major positive step for Alaska, the oil industry, and PWSRCAC.

Escort Tugs
One of the recommendations of the Tanker Risk Assessment included changes to the systems and vessels used to escort laden tankers. PWSRCAC played a lead role in forming a partnership of citizens, industry and government to examine a series of technical studies that led to the design, construction and deployment of the most powerful tractor tugs serving tankers in the world today.

Ice Detection Radar
The Tanker Risk Assessment identified icebergs as the greatest remaining threat to tankers in the Sound. In response, the council has led a collaborative effort to install ice-detection radar on a small island near Bligh Reef. This system will link to Alyeska and the Coast Guard so tanker captains and other mariners can be warned of ice in the shipping lanes.

Non-Indigenous Species
PWSRCAC has spearheaded efforts to prevent an invasion of Prince William Sound by aquatic nuisance species traveling in the ballast water of oil tankers and other vessels. The council brought all stakeholders together — government, industry and citizens — and commissioned two major studies of the problem by the Smithsonian Environmental Research Center. The PWSRCAC is participating with British Petroleum in an experiment testing whether ozone can be used to sterilize tanker ballast water en route, and is part of a broad consortium of West Coast, U.S. and Canadian agencies sponsoring a project to test promising new technologies to treat ballast water.

Vapor Control
When tankers load, crude oil vapors are forced out as crude oil flows in. Initially, those vapors were vented to the atmosphere, threatening the health of Valdez citizens and terminal workers. The council opposed this practice and called for a system to capture the vapors, backing up its position with a series of scientific studies. In 1995, the EPA adopted a rule requiring such equipment which began operating in 1998 on two of four berths at the Valdez Marine Terminal.

Contingency Plans and Operating Permits
The environmentally safe operation of the Valdez Marine Terminal and associated tankers is fundamentally driven by state and federal regulations. The greatest challenges for PWSRCAC include the need to reach internal agreement on complex issues among diverse interest groups and to develop reasonable and technically correct advice and comments to industry and government. PWSRCAC's official positions must be balanced, based on sound technical information, and not overly

influenced by extreme positions. We routinely monitor federal and state legislative and rule-making activities and seek opportunities to promote PWSRCAC's mission. Utilizing the local knowledge and experience of our volunteers and the citizens living and working in our region, we are able to recommend changes or additions to federal or state regulations to ensure that there is a balance between producing and protecting our resources. Review of various state and federal contingency plans and operating permits continues to be a major responsibility for PWSRCAC.

Healing the Human Environment
The need to repair the social and economic damage of manmade disasters was largely unaddressed until the council took it up in the early 1990s. After studies of the impacts of the Exxon Valdez spill on the community of Cordova, the council created "Coping with Technological Disasters," a guidebook for communities hit by oil spills and other manmade catastrophes. PWSRCAC produced a four-part video to train community members in peer listening, a counseling technique utilized in the guidebook.

Combating Complacency
Complacency in the oil industry and government agencies and with the general public is viewed as a contributing factor in the Exxon Valdez spill. The PWSRCAC, therefore, is to prevent complacency from ever again becoming a factor in a future oil spill.

Working Relationships
Today, the oil industry and regulators routinely consult the PWSRCAC and vice versa on oil transportation and related environmental issues. The PWSRCAC does not always agree with these other entities, and they don't always rely on our advice, but they consider our views and recommendations, and, in most instances, act upon them. A good example is the Valdez Marine Terminal Ballast Water Treatment Working Group mentioned earlier.

CURRENT PROJECTS AND ISSUES

PWSRCAC Long-Range Plan
The PWSRCAC utilizes a five-year strategic plan approved by its Board of Directors to guide its programs and projects. Based on our advisory role, some projects are reactive in nature, projects not anticipated or planned for in the five-year strategic planning process. A consistent theme throughout all of the PWSRCAC's programs and projects is to study, research and promote the use of best available technology for all aspects of the Valdez Marine Terminal and transportation of oil, including prevention and response arenas. Some of the major programs, projects and issues facing the PWSRCAC right now include:

Terminal Operations and Environmental Monitoring Program
This two-part program is intended to monitor actual and potential environmental impacts stemming from the operation of the Valdez Marine Terminal, and to review operational and maintenance practices. The objectives of the Terminal Operations program are to: monitor, develop and recommend PWSRCAC positions on Terminal operation issues; support maintenance and improvement of terminal facilities; promote

compliance with existing environmental regulations; and to monitor enforcement of and funding for existing environmental regulations. Some of the projects currently in place under the Terminal Operations program include:

National Pollutant Discharge Elimination System (NPDES) Permit Renewal: When tankers load crude oil at the Valdez Marine Terminal, oily ballast water is discharged to and treated at the terminal's ballast water treatment facility. The treated ballast water is discharged into Port Valdez under a National Pollutant Discharge Elimination System permit scheduled for renewal this year. Specific issues and areas of study for the PWSRCAC in this process include: determining if the discharge limits now imposed by the permit are still appropriate; reviewing monitoring requirements related to levels of hydrocarbons in the water column in and around the permitted mixing zone; the study and analysis of best available technologies for treating oily ballast water; and reviewing monitoring, sampling as well as compliance and enforcement provisions of the permit.

Right-of-Way Agreement Renewal: The agreements and grants of right-of-way for the Trans-Alaska pipeline system between the state and federal governments and Alyeska are scheduled to expire in early 2004, and the renewal process is well underway. PWSRCAC expects the new agreements will contain additional requirements to address the age of the facility and the adequacy of current maintenance and operations programs. The goals and objectives for this project are: to monitor the renewal process and verify that reliability issues and system integrity studies are adequately addressed; and to facilitate public participation by providing access to information. PWSRCAC is encouraging the Joint Pipeline Office and Alyeska to address all relevant maintenance issues to ensure that the 25 year old pipeline is as "good as new" prior to any renewal decisions.

Fire Protection Systems: PWSRCAC has participated in a long-standing project on the investigation, review and upgrade of fire protection facilities at the Valdez Marine Terminal. We continue to provide a third party review and acceptance testing of the modifications and follow-up on previously made recommendations pertaining to personnel training, emergency preparedness and maintenance of fire protection systems.

Valdez Air Quality and Title V Permit Renewal: The purpose of this project is to quantify, measure and ultimately reduce concentrations of hazardous air pollutants in Valdez and at the Valdez Marine Terminal. It is anticipated that the Valdez Marine Terminal air quality operating permit will be made available for review and approval in 2002. The primary objectives of this project are: to review and make recommendations for air quality monitoring activities in Valdez; ensure that air quality data is properly collected; perform a technical review an analysis of the Title V modeling calculations and other documentation; and to make recommendations to reduce potential health risks.

Oil Spill Response Planning Program

Through this program, PWSRCAC develops positions and recommendations on oil spill response technologies; reviews state and federal contingency plans and plan-related issues to promote compliance with and enforcement and funding of existing environmental regulations; supports maintenance and improvement of the Alaska Coastal Management Program process; and promotes the incorporation of local

knowledge of sensitive areas in contingency planning. Some of the projects currently in place under the Oil Spill Response Planning Program include:

State C-Plan Reviews: This project monitors and comments on state contingency plans for the Valdez Marine Terminal, tankers and related issues. This project focuses on the completion of the state 2002 public review on the Prince William Sound tanker plans, and the state's initiation of the 2002 public review for the Valdez Marine Terminal plan.

Weather and Sea Currents: This project studies wind, water current and other environmental factors near the Valdez Marine Terminal, in Prince William Sound and the Gulf of Alaska which may affect the ability to prevent, respond to, contain, and clean up an oil spill. Goals of this project include: the continuing development of a current measuring and circulation computer program; promoting maintenance of a weather information database and weather buoys; and developing increased weather tracking infrastructure in the PWSRCAC region.

Geographic Response Strategies: This project promotes region-wide response capability, focusing on the Prince William Sound tanker contingency plans. It supports the development of geographic response strategies as the primary mechanism for the protection of sensitive areas and resources. Project objectives include monitoring industry, state and federal contingency plans and response planning to ensure the development and corporation of geographic response strategies into relevant plans and participating in sensitive areas working groups and encourage the development of geographic response strategies for the protection of sensitive sites and resources.

Oil Spill Response Operations Program

This program encompasses the on-going activities that are designed to promote the operational readiness of oil spill response personnel, equipment and organization. During an oil spill drill or actual exercise, PWSRCAC is charged with observing the response efforts, providing independent verification of response efforts, informing citizens of response activities and decision making processes, and providing advice to the Incident Commanders based on independent observations, local knowledge and citizen concerns. The PWSRCAC Preparedness Monitoring Project falls under this program, enhancing our ability to observe, monitor, verify and report on activities that reflect the state of readiness to prevent and respond to oil spills in our region. In addition to the Preparedness Monitoring project, the Scientific Response Plan project falls under this program.

Scientific Response Plan: A scientific response plan guides the initial scientific response to a major spill. Based on knowledge gained through the review of existing scientific response plans and through use of a risk assessment model, a plan specific to our region is created to continue to form links with appropriate resource agencies and other groups working in a similar direction. It is also a tool to activate PWSRCAC scientific resources.

Maritime Operations Program

This program encompasses the monitoring and review of port organizations, operations, incidents and the adequacy and maintenance of the U.S. Coast Guard Vessel Traffic System. Specific objectives include: monitoring and evaluating weather station maintenance and operation; recording ice and weather closure data; tracking daily tanker arrival, departures and loading statistics; monitoring changes to the escort

system and field trials and exercises; monitoring the phase-in of double hulled tankers; and creating a tanker database to include human factors, a ship specific rating system and to track pollution incidents.

Ice Detection and Avoidance: A goal of the long-term ice detection and avoidance project is to provide real time ice information to the U.S. Coast Guard, Alyeska and mariners. PWSRCAC continues to be the primary stakeholder in promoting and facilitating the installation of the ice detection radar on Reef Island, located adjacent to the Columbia Glacier and the tanker shipping lanes. PWSRCAC is currently installing conventional radar on the site, with the expectation to have the system up and running by the end of summer, 2002. With the installation of the conventional radar, a Sigma SeaScan processor is also planned to be installed. In the most basic terms, this processor minimizes the sea clutter of conventional radar, thereby making the icebergs easier to track on conventional radar. Field testing, research and enhancement of the radar systems are scheduled for the next five years.

Environmental Monitoring Program

The Environmental Monitoring Program encompasses site-specific and region-wide monitoring activities. Objectives of the program include: commenting on and participating in monitoring and assessing the environmental, social and economic consequences of oil related accidents; providing input on actual and potential environmental impacts in or near Prince William Sound; commenting on the design of measures to mitigate the consequences of oil spills and other environmental impacts of terminal and tanker operations; and conducting research and development projects. Some of the projects currently in place under the Environmental Monitoring Project include:

Long Term Environmental Monitoring: Under direction from OPA90, the Long Term Environmental Monitoring Project (LTEMP) was initiated in 1993. The LTEMP study design requires continual sampling as long as oil flows through the pipeline. Hydrocarbon monitoring at 10 sites in Prince William Sound and the Gulf of Alaska are sampled twice a year via mussel tissue. Mussels from the Port Valdez sites will be sampled three times a year, and sediments twice a year, due to the documented increase in hydrocarbon load in that area. The PWSRCAC evaluates its environmental monitoring strategy on a regular basis to ensure that the data is cohesive, efficient and useful. Information based on the LTEMP project is used in various elements and in the decision making process for recommendations and advice given on a multitude of other PWSRCAC projects and issues.

Aquatic Nuisance Species: This project is designed to research the risk of invasion of Prince William Sound by aquatic nonindigenous species as a result of oil tanker ballast water discharge, and to research means by which that risk can be mitigated. Specific objectives include: investigating how the green crab and Chinese mitten crab could impact Prince William Sound and how it can be detected; researching and participating in the testing of ballast water treatment technologies; coordinating the PWSRCAC-sponsored nonindigenous species working group; and developing recommendations for the reauthorization legislation to the National Invasive Species Act of 1996.

Chemical Dispersants: Of the various response options, PWSRCAC endorses mechanical recovery as primary. Accordingly, PWSRCAC strongly recommends that dispersant effectiveness in Prince William Sound and the ecological risks associated

with chemically dispersed oil be understood prior to utilizing dispersants as a primary oil spill response strategy. The main objectives of this project are to determine if chemical dispersants stockpiled in our region are effective; to review toxicity research annually to determine if toxicity (photoenhanced, long-term fate and effects) is of concern; to promote additional research on the topic; and to promote the incorporation of knowledge and local input gained into the dispersant use decision making process. Through our work and research, we know that photoenhanced toxicity occurs in Alaska North Slope crude oil and chemically dispersed Alaska North Slope crude oil. To fully understand the issue of photoenhanced toxicity and to help responders make informed decisions regarding chemical dispersant use, PWSRCAC is collecting and documenting in situ ultraviolet measurements in Prince William Sound to be factored into future toxicity research.

CONCLUSION

We believe that complacency on the part of the industry, government, and the public was a contributing factor to the Exxon-Valdez oil spill in 1989 and that OPA90 provided a mechanism to close that gap. There were, of course, other contributing factors that have been addressed through scientific, technical, and operational measures, none of which would have been possible without the cooperative efforts of industry, government, and local citizens.

We have learned in Prince William Sound during the past thirteen years that communication is the key to combating complacency. Partnerships among stakeholders working to resolve issues early in the process leads to good policies, safer transportation of oil, better oil spill response capabilities and improved environmental protection practices. Providing a forum for public input gives the citizens a voice and an avenue to offer information and advice, including alternative solutions based on local knowledge and experience. This forum is the most basic tool to ensure that the necessary balance between industry, the environment and the people exists to produce and protect our resources.

If citizens lack a forum to provide a voice on issues that directly impact their lives, the result can be increased costs and permitting delays. Costly litigation and resulting delays caused by remediating environmental, human health and socio-economic impacts are examples of the problems that can be avoided by giving local citizens a voice in developing our resources.

To quote from the published paper authored jointly by the four major stakeholders in the Ballast Water Treatment Facility permit renewal discussed earlier:

> "We realize that every situation (and grouping of stakeholders) is unique. So, too, are environmental problems. However, if science and common sense can be brought to bear, for example through a process such as this, then appropriate decisions can be made with the approval and support of all stakeholders. And progress can be made. In other words, we can make a difference."

There must be a balance between natural resource extraction and environmental protection. Producing and protecting our resources is the right thing to do.